

Sub B21
maximum yield point when the tubular wall has a diameter of less than or equal to about 3.5 mm.

33. The unexpanded stent defined in claim 32, wherein the stent is expandable:

from a first unexpanded position to a second pre-expanded position at which the stent has reached a point of plastic deformation; and

at from the second pre-expanded position to a third expanded position wherein the stent will undergo plastic deformation to a maximum yield point when the tubular wall has a diameter of less than or equal to about 3.5 mm.

34. The unexpanded stent defined in claim 33, wherein, in the second pre-expanded position, the stent has a diameter greater than about 1.1 mm.

35. The unexpanded stent defined in claim 33, wherein, in the second pre-expanded position, the stent has a diameter sufficiently large for the stent to receive expansion means to further expand the stent.

36. The unexpanded stent defined in claim 33, wherein, in the first unexpanded position, the stent has a diameter less than or equal to about 1.1 mm.

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37. The unexpanded stent defined in claim 33,
wherein, in the first unexpanded position, the stent has a
diameter in the range of from about 0.5 to about to about 1.1
mm.

38. The unexpanded stent defined in claim 33,
wherein, in the first unexpanded position, the stent has a
diameter in the range of from about 0.5 to about to about 1.0
mm.

at
39. The unexpanded stent defined in claim 32,
wherein the tubular wall has a substantially circular cross-
section.

40. The unexpanded stent defined in claim 32,
wherein the tubular wall is constructed of a plastically
deformable material.

41. A partially expanded stent comprising a
proximal end and a distal end in communication with one
another, a tubular wall disposed between the proximal end and
the distal end, the tubular wall having a longitudinal axis
and a porous surface defined by a plurality of
interconnecting struts, the stent:

having been expanded by the application of a
radially outward force thereon from a first unexpanded

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position to a second pre-expanded position at which the stent has reached a point of plastic deformation, and

being further expandable upon the application of a radially outward force thereon from the second pre-expanded position to a third expanded position wherein the stent will undergo plastic deformation to a maximum yield point when the tubular wall has a diameter of less than or equal to about 3.5 mm.

42. The partially expanded stent defined in claim 41, wherein, in the third expanded position of the stent, the maximum yield point is reached when the tubular wall has a diameter of less than or equal to about 3.3 mm.

43. The partially expanded stent defined in claim 41, wherein, in the third expanded position of the stent, the maximum yield point is reached when the tubular wall has a diameter in the range of from about 2.2 to about 3.3 mm.

44. The partially expanded stent defined in claim 41, wherein, in the third expanded position of the stent, the maximum yield point is reached when the tubular wall has a diameter in the range of from about 2.5 to about 3.0 mm.

45. A stent delivery kit comprising:
a catheter;
an expandable member disposed on the catheter; and

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the partially expanded stent defined in claim 41
disposed on the catheter

46. The stent delivery kit defined in claim 45,
wherein the stent is mechanically mounted on the expandable
member.

47. The stent delivery kit defined in claim 46,
wherein the stent is crimped onto the expandable member.

at
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48. A method for mounting an unexpanded stent on a
catheter having an expandable member disposed thereon, the
unexpanded stent comprising a proximal end and a distal end
in communication with one another, a tubular wall disposed
between the proximal end and the distal end, the tubular wall
having a longitudinal axis and a porous surface defined by a
plurality of interconnecting struts, the stent being
expandable upon the application of a radially outward force
thereon:

(i) expanding the unexpanded stent to a second
pre-expanded position at which the stent has reached a point
of plastic deformation to produce a partially expanded stent;
and

(ii) placing the partially expanded stent on the
expandable member of the catheter.

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49. The method defined in claim 48, wherein Step (i) comprises urging the stent over a mandrel in a direction substantially parallel to the longitudinal axis.

50. The method defined in claim 48, wherein Step (i) comprises pushing the stent over a mandrel in a direction substantially parallel to the longitudinal axis.

at
51. The method defined in claim 48, wherein Step (i) comprises pulling the stent over a mandrel in a direction substantially parallel to the longitudinal axis.

52. The method defined in claim 50, wherein the mandrel is tapered.

53. The method defined in claim 48, wherein Step (i) comprises urging the stent over a die in a direction substantially parallel to the longitudinal axis.

54. The method defined in claim 48, wherein Step (i) comprises placing the stent over an expandable means, and thereafter expanding the stent to the second pre-expanded position.

55. The method defined in claim 48, wherein Step (ii) comprises crimping the partially expanded stent on to the expandable member of the catheter.--

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


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